

Idaho Department of Health and Welfare

Division of Health

Idaho Bureau of Laboratories

Sampling
And
Submission
Guide

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About the Bureau of Labs

Who are we?

The Idaho Bureau of Laboratories is the analytical arm of the Division of Health. When there is a need for laboratory work in support of public health clinics, water pollution studies, drinking water protection, food protection, among other activities of IDHW, the lab does those tests. The Lab is mandated to support state and local health departments in their duties and supply testing which supports and confirms private physicians and clinical laboratory efforts. When these entities require a test that is too uncommon or require a second opinion or confirmation in regards to a sample, the lab is ready to help. In addition, this facility provides training for laboratorians and insures the quality of environmental and medical testing laboratories through an inspection and licensing program. There are between 35 to 40 scientists, technicians, laboratory inspectors, and support staff performing these activities.

Where did we come from?

In 1904 the legislature enabled the establishment of the precursor to the present Bureau of Laboratories. The State Dairy and Pure Food Commission suggested that "A State Chemist be employed and a laboratory established". Since the Board of Health was not established until 1919, the Bureau of Labs is probably one of the oldest sections in the Department of Health and Welfare. It is also, with the possible exception of early mining assay laboratories, one of the oldest laboratory entities in the state.

Other state laboratories have "spun off" from the Bureau. The milk testing which was one of our original functions has been moved to the Department of Agriculture. In the early 1960s, we began doing limited forensic testing for the law enforcement agencies in Idaho. From then, into the 1980s this effort became a full-fledged forensic laboratory. That laboratory was moved to Department of Law Enforcement (DLE). It is now in Meridian, at DLE's central facility there.

What are we doing?

The Idaho Bureau of Laboratories performs a wide variety of chemical and microbiological analyses. See the Analytical Services Pages for a complete list.

Where are we going?

The Idaho Bureau of Laboratories is constantly looking for better ways to uncover and identify health threats. Current efforts include utilizing new and rapidly evolving methods in molecular biology. The laboratory is currently investigating methods for DNA sequence detection and typing for Norovirus. This gastrointestinal virus can cause widespread illness, as has been witnessed by the Cruise industry over the past three years. Utilizing a DNA sequencer, we can identify and classify outbreaks of *Norovirus* more specifically and accurately. In addition, past research using Polymerase Chain Reaction (PCR) methods for the detection of

shigatoxins, a group of toxins in *E. coli*, the *Cholera vibrio*, and *Shigella* species that cause dysentery, were successful in helping to detect and determine food related outbreaks in pepperoni. These techniques have shown that not all dangerous *E. coli* in Idaho belongs to the infamous O157:H7 serotype. The laboratory has developed, and is in the process of developing and validating, PCR techniques for the detection of bacteria and viruses that are difficult to grow, but which pose significant public health risks. Some of the PCR related tests that we currently use are: *Bordetella pertussis* (Whooping cough), *Norovirus*, *West Nile Virus*, and many zoonotic diseases that could be used as agents of bioterrorism such as anthrax and plague.

The Idaho Public Health Laboratory

The Bureau of Laboratories consists of one centralized laboratory in the state capitol, Boise. This laboratory serves as a clinical reference laboratory and analytical lab for the seven Public Health Districts in the state, the state's hospitals and physicians, the Idaho Department of Environmental Quality, the Department of Homeland Security, the Federal Bureau of Investigation, the Idaho State Police and the Bureau of Hazardous Materials, and the citizens of Idaho.

Bureau Chief: Richard F. Hudson, Ph.D.

2220 Old Penitentiary Road, Boise, Idaho 83712-8299

208-334-2235 FAX: 208-334-2382

The Idaho Bureau of Laboratories is composed of seven sections:

LABORATORY ADMINISTRATION SECTION

Section Manager: Margarita Santos (208) 334-2235 ext. 224

In addition to administrative services, we provide supplies, shipping and receiving, and budget support to all the branch laboratories and lab sections

VIROLOGY AND SEROLOGY SECTION

Program Manager: Colleen Greenwalt (208) 334-2235 ext. 228

The Virology and Serology section is responsible for a majority of the Sexually Transmitted disease testing, Respiratory and Gastrointestinal Virus testing and new and emerging virus testing. They also conduct assays for the detection of a number of other agents including Rabies, Hantavirus and West Nile Virus.

MICROBIOLOGY SECTION

Program Manager: Richard Hudson (208) 334-2235 ext. 268

The Microbiology section probably does most of the testing traditionally associated with public health. This section identifies the agents of bacterial, parasitic, and fungal communicable diseases. Microbiology also tests drinking water, recreational water, and other surface waters for pathogens and biological contaminants. In addition, the microbiology section also tests foods for bacterial agents of food poisoning and adulterants. Certification of private environmental laboratories for bacterial contaminants, under the direction and auspices of EPA, is conducted by this section.

CHEMISTRY SECTION

Program Manager: Wally Baker (208) 334-2235 ext. 233

The Chemistry section is responsible for analysis of organic and inorganic chemicals, and residues found in water, soils, food products, and hazardous materials. They work closely with the Idaho Department of Environmental Quality, the seven public health districts and the Bureau of Hazardous Materials.

LABORATORY IMPROVEMENT SECTION

Program Manager: David Eisentrager (208) 334-2235 ext. 245

Laboratory Improvement is the section responsible for registering and certifying all clinical laboratories performing laboratory testing in Idaho. They enforce the CLIA regulations by inspection of qualifying labs every two years. X-ray inspections and educational efforts also are included in the responsibilities of this section.

BIOLOGICAL AND CHEMICAL TERRORISM

Biological Terrorism Coordinator	Walt DeLong	(208) 334-2235 ext.252
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Chemical Terrorism Coordinator	Ian Elder	(208) 334-2235 ext.269
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Analytical Methods in General Microbiology, Virology and Serology

(ALPHABETICAL BY AGENT)

ACID FAST BACILLI (AFB)

SEE: [MYCOBACTERIUM SPP.](#)

ADENOVIRUS, RESPIRATORY DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87252 culture, 87253 DFA
SPECIMEN: Nasopharyngeal or throat swab in viral transport medium
Nasal wash (>1 ml)
Bronchoalveolar lavage, pleural fluid, tracheal aspirate (>1 ml)
Ocular swab in viral transport medium
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1 day DFA, culture 14 days for negative

ADENOVIRUS, ENTERIC DETECTION IN CLINICAL SAMPLES

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE:
SPECIMEN: 1 g stool or rectal swabs collected in containers that do not contain preservatives. Rectal swabs must contain 30-40 mg of raw stool.
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Detects enteric adenovirus serotypes 40 and 41

AEROMONAS SPP. DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Within 4-6 working days of specimen receipt

AEROMONAS SPP. IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

AFRICAN TRYPANOSOMIASIS

SEE: [TRYPANOSOMA BRUCEI SPP.](#)

AMEBIASIS

SEE: [ENTAMOEBIA HISTOLYTICA](#)

AMERICAN TRYPANOSOMIASIS

SEE: [TRYPANOSOMA CRUZI](#)

ANCYLOSTOMA SPP. (CUTANEOUS LARVA MIGRANS)

ANTIBODY DETECTION

SEE: [PARASITE SEROLOGY](#)

ANTHRAX

SEE: [BACILLUS ANTHRACIS](#)

ANTIMICROBIAL SUSCEPTIBILITY TESTING

**METHODOLOGY: VARIES ACCORDING TO ORGANISM AND ANTIMICROBIAL AGENT.
MAY INCLUDE DISK DIFFUSION, E-TEST, OR BROTH MICRODILUTION METHODS.**

RESTRICTIONS: Susceptibility testing is done for surveillance purposes on reportable disease agents.
Check individual agents, or call the laboratory at 208-334-2235 ext 257 for special circumstances.

CPT CODE: 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Not available

COMMENTS: Refer suspected vancomycin intermediate or resistant *Staphylococcus aureus* (VISA, VRSA) for confirmatory testing.

ARBOVIRUS

PCR PANEL

METHODOLOGY: PCR

Tests Included in Panel: West Nile Virus (WNV), Saint Louis Encephalitis Virus, Western Equine Encephalitis Virus

RESTRICTIONS: Contact your local health department, or Fish and Game office before requesting this test.

CPT CODE: N/A

SPECIMEN: Mosquito Pools
Birds: corvids and raptors only (WNV only) - oral swabs from corvids, tissue from raptors submitted through Wildlife laboratory.

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Not available

ARBOVIRUS

IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

Tests Included in Panel: West Nile Virus (WNV) and Saint Louis Encephalitis Antibody
WNV serology tests may be requested separately from the rest of the panel.
See entry for [West Nile Virus Antibody Detection](#).

RESTRICTIONS: None

CPT CODE: 86790 (WNV), 86653 (SLE)

SPECIMEN: Serum, preferred (1 ml)
CSF, only IgM performed (1 ml)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 1-3 days

ARTHROPOD IDENTIFICATION

METHODOLOGY: EXAMINATION OF BODY STRUCTURES

RESTRICTIONS: None
CPT CODE: 87168
SPECIMEN: Whole arthropod in 70% alcohol
Do not place on cellophane tape.
SHIPPING: Ship at room temperature.
TURNAROUND: Within 5 working days of specimen receipt

***ASPERGILLUS* SPP. IDENTIFICATION OF REFERRED CULTURE**

METHODOLOGY: CULTURE MORPHOLOGY, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87107
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Usually within 2 weeks of specimen receipt

***BABESIA* SPP. DETECTION, IDENTIFICATION, OR CONFIRMATION BY MICROSCOPY**

SEE: [PARASITE EXAMINATION, BLOOD](#); [PARASITE IDENTIFICATION, BLOOD](#)

***BACILLUS ANTHRACIS* DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix A](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2-3 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***BACILLUS ANTHRACIS* IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1-2 days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

***BACILLUS ANTHRACIS* ISOLATION FROM ENVIRONMENTAL SAMPLES**

RESTRICTIONS: Contact local law enforcement or State Communications (208)846-7610 or (800)632-8000 before requesting this test.
TURNAROUND: Not available

BACILLUS CEREUS
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship stool at room temperature, food at refrigeration temperature.
TURNAROUND: Within 4 working days of specimen receipt

BACILLUS CEREUS
DETECTION OF DIARRHEAL TYPE ENTEROTOXIN IN FOOD

METHODOLOGY: REVERSED PASSIVE LATEX AGGLUTINATION

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:
SPECIMEN: Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 working day of specimen receipt

BACILLUS CEREUS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: There is no restriction on confirmation/identification of referred isolate. Toxin testing is performed only for investigation of foodborne illness. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 5 working days of specimen receipt

BACTERIA, AEROBIC IDENTIFICATION

**METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE,
SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED**

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

BACTERIA, ANAEROBIC IDENTIFICATION

SEE ALSO: [CLOSTRIDIUM BOTULINUM](#), [CLOSTRIDIUM PERFRINGENS](#)

**METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE,
SEQUENCING OF 16S RIBOSOMAL DNA IF INDICATED**

RESTRICTIONS: None
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

BACTERIAL MENINGITIS

SEE: [MENINGITIS, BACTERIAL](#); ALSO INDIVIDUAL AGENTS

BETA HEMOLYTIC *STREPTOCOCCUS*

SEE: [STREPTOCOCCUS](#)

BLASTOMYCES DERMATITIDIS

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY AND CONVERSION, NUCLEIC ACID PROBE

RESTRICTIONS: Call Idaho Bureau of Laboratories (208)334-2235 ext 253 before sending isolate.
CPT CODE: 87107 (Culture ID), 87797 (NA Probe)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results within 1 working day of specimen receipt

BORDETELLA PERTUSSIS

ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

BORDETELLA PERTUSSIS

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87081
SPECIMEN: Nasopharyngeal swab or aspirate; calcium alginate or Dacron swabs are recommended. Collection kits available from laboratory. Call (208) 334-2235 ext 264.
SHIPPING: Deliver to the laboratory in < 2 hours or contact laboratory for transport medium recommendations. Ship at refrigeration temperature.
TURNAROUND: Negative reports issued after 10 days of incubation
COMMENTS: Cotton and rayon swabs are toxic to *B. pertussis*
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS

DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact your local Health District before requesting this test.
CPT CODE: 87798
SPECIMEN: Collection kits available from laboratory. Call (208) 334-2235 ext 264.
Nasopharyngeal swab, dry or in ≤2 ml viral transport medium in a sterile tube. Dacron swabs are preferred. Do not use calcium alginate swabs.
Nasal wash (0.5 ml)
Throat swab, dry or in ≤2 ml viral transport medium. Do not use calcium alginate swabs.
Bronchoalveolar lavage, pleural fluid, tracheal aspirate (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is for research use only.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

**METHODOLOGY: MICROSCOPIC MORPHOLOGY, IMMUNOFLUORESCENCE,
BIOCHEMICAL TESTING**

RESTRICTIONS: None
CPT CODE: 87077, 87265
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Direct Fluorescent Antibody results available within 1 working day of specimen receipt.
Biochemical identification of pure cultures available within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
MOLECULAR SUBTYPING

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

BOTULISM/BOTULINUM TOXIN

SEE: [CLOSTRIDIUM BOTULINUM](#)

BRUCELLA SPP
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.

CPT CODE: 87081

SPECIMEN: See [Appendix B](#)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Negative results available after 7-21 days of incubation

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BRUCELLA SPP
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

**METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK
PROTOCOLS**

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 1 week of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: *B. abortus*, *melitensis*, and *suis* have been designated as Select Agents (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BRUCELLA SPP.
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.

CPT CODE: 87077

SPECIMEN: Serum (2 ml)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Not available

COMMENTS: Sent to CDC.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BUBONIC PLAGUE

SEE: [YERSINIA PESTIS](#)

BURKHOLDERIA MALLEI **DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.

CPT CODE: 87081

SPECIMEN: See [Appendix C](#)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 4-7 days

BURKHOLDERIA MALLEI **IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.

CPT CODE: 87077

SPECIMEN: Actively growing culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: 4 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BURKHOLDERIA PSEUDOMALLEI **DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.

CPT CODE: 87081

SPECIMEN: See [Appendix C](#)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 4-7 days

BURKHOLDERIA PSEUDOMALLEI **IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.

CPT CODE: 87077

SPECIMEN: Actively growing culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: 4 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CALICIVIRUS
SEE: [NOROVIRUS](#)

CAMPYLOBACTER SPP.
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

CAMPYLOBACTER SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days. Positive results are phoned to submitter as soon as available
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available in 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

CANDIDA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87106
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 week of specimen receipt

CHAGAS DISEASE
SEE: [TRYPANOSOMA CRUZI](#)

CHANCHROID
SEE: [HAEMOPHILUS DUCREYI](#)

CHANCRE
SEE: [TREPONEMA PALLIDUM](#)

CHICKEN POX
SEE: [VARICELLA ZOSTER VIRUS](#)

CHLAMYDIA TRACHOMATIS
NUCLEIC ACID DETECTION

METHODOLOGY: NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87490
SPECIMEN: Endocervical / male urethral swab / conjunctival (collected with Gen-Probe specific collection kits only)
SHIPPING: Refrigeration temperature, specimens must arrive at laboratory within 7 days of collection.
TURNAROUND: Daily
COMMENTS: This method is not recommended for medico legal cases and is not acceptable for throat or rectal swabs. Only culture procedures are recommended for these situations.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CHLAMYDIA TRACHOMATIS
CHLAMYDIA GROUP, IgG AND IgM ANTIBODY DETECTION

METHODOLOGY: INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None.
CPT CODE:
SPECIMEN: Serum
SHIPPING: Send at refrigerated temperature
TURNAROUND: Within 1 working day of receipt of specimen

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CHOLERA

SEE: [VIBRIO SPP.](#)

CLOSTRIDIUM BOTULINUM
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87075 (Clinical)
SPECIMEN: See [Appendix D](#)
SHIPPING: See [Appendix D](#)
COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing
TURNAROUND: Within 10 working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CLOSTRIDIUM BOTULINUM
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing
TURNAROUND: Not available

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

***CLOSTRIDIUM BOTULINUM* TOXIN
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD**

METHODOLOGY: TOXIN NEUTRALIZATION ASSAY

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE:

SPECIMEN: See [Appendix D](#)

SHIPPING: See [Appendix D](#)

COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing

TURNAROUND: Within 5 working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***CLOSTRIDIUM PERFRINGENS*
DETECTION IN STOOL OR IMPLICATED FOOD**

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87075 (Stool)

SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.

SHIPPING: Ship stool at room temperature, food at refrigeration temperature.

TURNAROUND: Within 5 working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***CLOSTRIDIUM PERFRINGENS*
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: Toxin testing is done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87076

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 5 working days of specimen receipt

***CLOSTRIDIUM TETANI*
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: None

CPT CODE: 87076

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 2 weeks of specimen receipt

COMMENTS: If required, toxin testing is performed at CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CMV

SEE: [CYTOMEGALOVIRUS](#)

COCCIDIoidES IMMITIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY, NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87107 (Culture ID), 87797 (NA Probe)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results within 1 working day of specimen receipt
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CORYNEBACTERIUM DIPHTHERIAE
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 257 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87081
SPECIMEN: Nasopharyngeal swab, throat swab, membrane sample
Inoculate Loeffler's slant (available from IBL), leave swab on slant. Deliver to laboratory immediately or incubate at 37C and deliver within 18 hours of inoculation.
SHIPPING: Ship at room temperature.
TURNAROUND: Negative results available after 48 hours of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CORYNEBACTERIUM DIPHTHERIAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

**METHODOLOGY: MICROSCOPIC MORPHOLOGY, GROWTH CHARACTERISTICS,
OTHER METHODS AS NEEDED**

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 257 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: *C. diphtheriae* ruled out within 1 working day of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

COXIELLA BURNETII
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: PCR or Time Resolved Fluorescence Assay (TRF)

RESTRICTIONS: Contact laboratory at (208)334-2235 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87798

SPECIMEN: Tissue or bone marrow (100 mg)
Whole EDTA blood or serum (0.5 ml)
Nasopharyngeal or throat swab, dry or in transport medium
Sputum, bronchial/tracheal washings (0.5 ml)
Lesion exudates

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 2 days

COMMENTS: This test is for research use only.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

COXSACKIE VIRUS

SEE: [ENTEROVIRUS](#)

CRYPTOCOCCUS NEOFORMANS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY, BIOCHEMICAL TESTING

RESTRICTIONS: None

CPT CODE: 87106

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Identification from pure culture available within 2 weeks

CRYPTOSPORIDIUM SPP. (C. PARVUM, C. HOMINIS)
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION, AND DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None

CPT CODE: 87015, 87272

SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH)
Sputum preserved in 10% formalin

SHIPPING: Ship at room temperature.

TURNAROUND: Within 3 working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CRYPTOSPORIDIUM SPP. (*C. PARVUM*, *C. HOMINIS*)
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION, ACID-FAST STAIN, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 5 working days of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CYCLOSPORA CAYETANENSIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CONCENTRATION, ACID-FAST STAIN

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt

CYCLOSPORA CAYETANENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION, ACID-FAST STAIN, AUTOFLUORESCENCE

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt

CYTOMEGALOVIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 86645
SPECIMEN: Serum (0.5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 day of receipt of specimen

DIPHTHERIA
SEE: [CORYNEBACTERIUM DIPHTHERIAE](#)

DIPHYLLOBOTHRIUM LATUM
DETECTION AND IDENTIFICATION
SEE: [PARASITE EXAMINATION, INTESTINAL](#) AND [PARASITE IDENTIFICATION](#)

ECHOVIRUS
SEE: [ENTEROVIRUS](#)

ENCEPHALITIS
SEE: [ARBOVIRUS TEST LISTINGS](#), INDIVIDUAL AGENTS

ENTAMOEBA HISTOLYTICA/DISPAR
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION AND TRICHROME STAIN

RESTRICTIONS: None
CPT CODE: 87177, 88313
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
Sigmoidoscopy scrapings or aspirates mixed with an equal volume of PVA
Abscess material mixed with an equal volume of PVA
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended for diagnosis of intestinal amebiasis.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ENTAMOEBA HISTOLYTICA/DISPAR
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 88313
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Not available
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ENTERIC BACTERIAL CULTURE, ROUTINE
DETECTION OF BACTERIAL PATHOGENS IN STOOL

METHODOLOGY: CULTURE

Agents Detected: *Salmonella* spp., *Shigella* spp., *Campylobacter* spp., *E. coli* O157:H7, and *Yersinia* spp.
RESTRICTIONS: None
CPT CODE: 87045, 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results are reported within 3-4 working days. Positive results are phoned to the submitter as soon as available.

ENTEROBIUS VERMICULARIS
DETECTION OF EGGS IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87172
SPECIMEN: Commercial paddle
Cellophane tape transferred to a glass slide
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 working day
COMMENTS: A minimum of 4-6 specimens collected on consecutive mornings is recommended for diagnosis.
Eggs are not reliably found by routine parasite examination of stool.

ENTEROHEMORRHAGIC *E. COLI* (EHEC)
SEE: [ESCHERICHIA COLI, PATHOGENIC](#), [ESCHERICHIA COLI O157:H7](#)

ENTEROVIRUS DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND DFA FOR COXSACKIE, ECHOVIRUS, ENTEROVIRUS, AND POLIO IDENTIFICATION

RESTRICTIONS: None
CPT CODE: 87252, 87253 for identification
SPECIMEN: Throat swab (in viral transport medium), Respiratory fluids (1 ml) including bronchoalveolar lavage, nasal wash, pleural fluid, stool, CSF (1 ml), Skin vesicle (see [Rash Illness Panel](#))
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available within 14 days.
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable
Encephalitis caused by viral agents must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7 ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

***ESCHERICHIA COLI* O157:H7 DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results are available within 2-4 working days. Positive results are phoned to submitter as soon as available
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***ESCHERICHIA COLI* O157:H7 IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 2
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

ESCHERICHIA COLI, PATHOGENIC
DETECTION/IDENTIFICATION/CONFIRMATION

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, SEROTYPING, PCR

RESTRICTIONS: None
CPT CODE: 87077, 87147, 87798
SPECIMEN: Appropriate primary isolation plate
Actively growing pure culture on suitable medium
Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship cultures or preserved stool samples at room temperature. Transport fresh stool samples at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Tests may include PCR for virulence factors characteristic of enterohemorrhagic *E. coli* (EHEC).
Toxigenic non-O157 strains must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FOOD POISONING (SUSPECTED)
DETECTION OF BACTERIAL PATHOGENS OR ENTEROTOXINS IN IMPLICATED FOOD

METHODOLOGY: QUANTITATIVE CULTURE, REVERSED PASSIVE LATEX AGGLUTINATION

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local Health District or to the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87070, 87076 (Anaerobic ID), 87077 (Aerobic ID)
SPECIMEN: Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available

FRANCISELLA TULARENSIS
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 86668
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Sent to CDC.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FRANCISELLA TULARENSIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix E](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available after 5-7 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

FRANCISELLA TULARENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: Not available

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

FUNGUS IDENTIFICATION
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY, BIOCHEMICAL TESTING, NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87107
SPECIMEN: Actively growing pure culture on suitable medium, sealed culture system
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

Note: *Coccidioides immitis* has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

GASTROENTERITIS, VIRAL
SEE: [NOROVIRUS](#), [ADENOVIRUS](#), [ROTAVIRUS](#)

GIARDIA LAMBLIA
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87015, 87272
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
Duodenal contents (aspiration or Entero-Test capsule) mixed with an equal volume of PVA
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended. Traditional methods detect cysts and trophozoites; DFA detects cysts only.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GIARDIA LAMBLIA
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GISA (GLYCOPEPTIDE INTERMEDIATE STAPHYLOCOCCUS AUREUS)
SEE: [STAPHYLOCOCCUS AUREUS GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE \(GISA/VISA\)](#)

GONORRHEA (GC)SEE: [NEISSERIA GONORRHOEAE](#)

GROUP A STREPTOCOCCUSSEE: [STREPTOCOCCUS, GROUP A](#)

GROUP B STREPTOCOCCUS**ANTIGEN DETECTION**SEE: [MENINGITIS, BACTERIAL](#)

GROUP B STREPTOCOCCUSSEE: [STREPTOCOCCUS, GROUP B](#)

GRSA (GLYCOPEPTIDE RESISTANT STAPHYLOCOCCUS AUREUS)SEE: [STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)

HAEMOPHILUS DUCREYI**DETECTION OF DNA IN CLINICAL SAMPLES****METHODOLOGY: PCR****RESTRICTIONS:** Contact the laboratory at (208) 334-2235 ext 257 before requesting this test. See comments.**CPT CODE:****SPECIMEN:** Dry swabs (2) of lesion. (kits are available from IBL)**SHIPPING:** Ship overnight at refrigeration temperature or on ice pack.**TURNAROUND:** Not available**COMMENTS:** Sent to CDC**This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)**

HAEMOPHILUS INFLUENZAE**ANTIMICROBIAL SUSCEPTIBILITY TESTING**SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

HAEMOPHILUS INFLUENZAE**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING, BIOTYPING****RESTRICTIONS:** None**CPT CODE:** 87077, 87147 x 6**SPECIMEN:** Actively growing pure culture on suitable medium**SHIPPING:** Ship at room temperature.**TURNAROUND:** Identification from pure culture available within 2-3 working days**Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)**

HANTAVIRUS**IgM AND IgG ANTIBODY DETECTION****METHODOLOGY: ENZYME IMMUNOASSAY****RESTRICTIONS:** Contact the laboratory (208)334-2235 and/or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.**CPT CODE:** 86790 x 2**SPECIMEN:** Serum (1 ml)**SHIPPING:** Ship at refrigeration temperature.**TURNAROUND:** Within 1 working day of specimen receipt, if prearranged**This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)**

**HANTAVIRUS
TOTAL ANTIBODY, RODENT**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: Contact the laboratory (208)334-2235 and/or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: N/A
SPECIMEN: Contact laboratory
SHIPPING: Contact laboratory
TURNAROUND: Not available
COMMENTS: Survey studies only, no single rodents

**HEMOLYTIC UREMIC SYNDROME (HUS)
DETECTION OF AGENT IN CLINICAL SAMPLES**

SEE ALSO: [ESCHERICHIA COLI, PATHOGENIC](#), [ESCHERICHIA COLI O157:H7](#)

METHODOLOGY: CULTURE, PCR

RESTRICTIONS: None
CPT CODE: 87046, 87798
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
Other specimen types - contact laboratory
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Within 2-4 working days of specimen receipt
COMMENTS: If HUS is suspected and *E. coli* O157 has not been found, send stool specimen
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**HEPATITIS B
SURFACE ANTIGEN WITH REFLEX TO CONFIRMATION**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 87341, 87341 for confirmation
SPECIMEN: Serum (1.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1X per week
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**HEPATITIS B
SURFACE ANTIBODY**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 83706
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1X per week

**HEPATITIS B
CORE TOTAL ANTIBODY**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE:
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

HEPATITIS C TOTAL ANTIBODY SCREEN

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86803
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HERPES SIMPLEX VIRUS DETECTION IN CLINICAL SAMPLES

SEE ALSO: [RASH ILLNESS PANEL](#)

METHODOLOGY: CULTURE WITH DIRECT FLUORESCENT ANTIBODY TYPING FOR HSV1 AND HSV2

RESTRICTIONS: None
CPT CODE: 87252
SPECIMEN: Vesicle lesion in viral transport medium or as described below for PCR
Throat swab in viral transport medium
Genital swab in viral transport medium
Ocular swab in viral transport medium
CSF (1 ml)
Brain tissue
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 7 days for negative result

HERPES SIMPLEX VIRUS IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE:
SPECIMEN: Serum (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

HERPES ZOSTER

SEE: [VARICELLA ZOSTER VIRUS](#)

HISTOPLASMA CAPSULATUM IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE MORPHOLOGY AND CONVERSION, NUCLEIC ACID PROBE

RESTRICTIONS: Call laboratory (208)334-2235 ext 253 for availability of NA probe.
CPT CODE: 87107 (Culture ID), 87797(NA Probe)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results within 1 working day.

HIV

SEE: [HUMAN IMMUNODEFICIENCY VIRUS](#)

HOOKWORM

SEE: [PARASITE EXAMINATION, PARASITE IDENTIFICATION](#)

HSV

SEE: [HERPES SIMPLEX VIRUS](#)

HUMAN IMMUNODEFICIENCY VIRUS I ANTIBODY CONFIRMATION

METHODOLOGY: WESTERN BLOT IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86689
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2X per week, 1 day if exposure

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HUMAN IMMUNODEFICIENCY VIRUS I ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO CONFIRMATION

RESTRICTIONS: None
CPT CODE: 56701, 86689 for Western Blot confirmation
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2x per week, 1 day if exposure

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

INFANT BOTULISM

SEE: [*CLOSTRIDIUM BOTULINUM*](#)

INFLUENZA A AND B VIRUSES SUBTYPING OF VIRAL ISOLATES WITH WHO/CDC REAGENTS

METHODOLOGY: HEMAGGLUTINATION INHIBITION, PCR

RESTRICTIONS: None
CPT CODE: 87798 (PCR)
SPECIMEN: Actively growing influenza isolate on cell culture
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

Unusual incidences or laboratory confirmed cases must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

INFLUENZA A AND B VIRUSES DETECTION

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY, PC

RESTRICTIONS: None
CPT CODE: 87252 for culture
SPECIMEN: Acute phase serum or aspirate (>1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 14 days for negative culture, direct fluorescent antibody results within 1-2 days.

Unusual incidences or laboratory confirmed cases must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA PNEUMOPHILA
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY (POLYVALENT)

RESTRICTIONS: None
CPT CODE: 87278
SPECIMEN: Lower respiratory secretions (>1 ml)
Pleural fluid (>1 ml)
Lung tissue in just enough sterile saline to keep moist
SHIPPING: Send to the laboratory as soon as possible.
Ship at refrigeration temperature.
TURNAROUND: Within 1 working day
COMMENTS: This test is genus specific only.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, IMMUNOFLUORESCENCE

RESTRICTIONS: None
CPT CODE: 87081, 87278
SPECIMEN: Lower respiratory secretions (>1 ml)
Pleural fluid (>1 ml)
Lung tissue in just enough sterile saline to keep moist
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is genus specific only.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES
DETECTION IN ENVIRONMENTAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: Contact the laboratory (208) 334-2235 before requesting this test.
TURNAROUND: Not available

LEGIONELLA SPECIES
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: MORPHOLOGY, GROWTH CHARACTERISTICS, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available
COMMENTS: Sent to CDC
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIRA SPP.**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: SEROLOGIC AND MOLECULAR METHODS**

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: N/A

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Not available

COMMENTS: Sent to CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIRA SPP.**IgM AND IgG ANTIBODY DETECTION****METHODOLOGY: MICROSCOPIC AGGLUTINATION OR ELISA**

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 86720

SPECIMEN: Serum (1ml)

SHIPPING: Ship frozen or refrigerated.

TURNAROUND: Not available

COMMENTS: Sent to CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIROSIS

SEE: [LEPTOSPIRA SPP.](#)

LISTERIA MONOCYTOGENES**MOLECULAR SUBTYPING**

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

LISTERIA MONOCYTOGENES**DETECTION IN CLINICAL SAMPLES****METHODOLOGY: CULTURE**

RESTRICTIONS: None

CPT CODE: 87046 (Stool), 87081 (Other sources)

SPECIMEN: Blood - send inoculated blood culture bottle

CSF, body fluids (1 ml)

Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)

SHIPPING: Ship blood culture or stool in transport medium at room temperature.

Ship other clinical samples at refrigeration temperature.

TURNAROUND: Negative results available after 4-7 days of incubation

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LISTERIA MONOCYTOGENES**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: BIOCHEMICAL TESTING**

RESTRICTIONS: None

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Identification from pure culture within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MALARIA

SEE: [PLASMODIUM SPP.](#)

**MEASLES (RUBEOLA) VIRUS
IgM AND IgG ANTIBODY DETECTION****METHODOLOGY: ENZYME IMMUNOASSAY**

RESTRICTIONS: None
CPT CODE: 86765
SPECIMEN: Acute phase serum or acute and convalescent paired sera, (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: IgG 1X per week, IgM upon request

Measles (Rubeola) must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MENINGITIS, VIRAL

SEE: [ENTEROVIRUS](#)

MENINGOCOCCEMIA

SEE: [NEISSERIA MENINGITIDIS](#)

MENINGOCOCCUS

SEE: [NEISSERIA MENINGITIDIS](#)

MENINGOENCEPHALITIS, VIRAL

SEE: [ARBOVIRUS](#), [ENTEROVIRUS](#), OTHER INDIVIDUAL AGENTS AS INDICATED

METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

SEE: [STAPHYLOCOCCUS AUREUS](#), [METHICILLIN RESISTANT](#)

MICROFILARIAE

SEE: [PARASITE EXAMINATION, BLOOD](#)

**MONKEYPOX VIRUS
DETECTION OF DNA IN CLINICAL SAMPLES****METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)**

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Contact laboratory for transport instructions.
TURNAROUND: Not available
COMMENTS: This test is for research use only.

MRSA (METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS*)

SEE: [STAPHYLOCOCCUS AUREUS](#), [METHICILLIN-RESISTANT](#)

**MUMPS VIRUS
IgG and IgM ANTIBODY DETECTION
METHODOLOGY: INDIRECT FLUORESCENT ANTIBODY**

RESTRICTIONS: None
CPT CODE: 86735
SPECIMEN: Congenital or acute phase serum or paired sera
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week, IgM on request

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM AFRICANUMSEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM AVIUM COMPLEXSEE: [MYCOBACTERIUM SPP. \(NOT TUBERCULOSIS\)](#)

MYCOBACTERIUM BOVIS BCG**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: CONVENTIONAL BIOCHEMICALS, 16S rDNA SEQUENCING, SPOLIGOTYPING**

RESTRICTIONS: None
CPT CODE: 87118
SPECIMEN: Actively growing culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Not available
COMMENTS: *M. bovis* is a member of the *M. tuberculosis* complex and is routinely reported as such. Specific identification may be requested to rule out dissemination as a complication of BCG therapy against bladder cancer. Spoligotyping performed at regional genotyping laboratory.

MYCOBACTERIUM CANETTISEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM MICROTISEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM SPP.**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: NUCLEIC ACID PROBE, 16S rDNA SEQUENCING, AND CONVENTIONAL BIOCHEMICALS**

RESTRICTIONS: None
CPT CODE: 87118
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results available within 3 working days. Biochemical identification varies.

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS)**ANTIMICROBIAL SUSCEPTIBILITY TESTING**

RESTRICTIONS: Testing is done on request only and must be billed directly to the submitter.
CPT CODE: 87190
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Varies
COMMENTS: Isolates are sent to National Jewish Mycobacterial Reference Lab, Denver, CO.

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS)**DETECTION IN CLINICAL SAMPLES****METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE**

RESTRICTIONS: None
CPT CODE: 87015, 87206, 86116
SPECIMEN: See [Appendix F](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Smear available within 1 working day. Negative culture results available after 6 weeks of incubation.

MYCOBACTERIUM TUBERCULOSIS COMPLEX
ANTIMICROBIAL SUSCEPTIBILITY TESTING, FIRST-LINE DRUGS

METHODOLOGY: PERFORMED BY VERSATREK MYCO-ESP METHOD, PYRAZINAMINIDASE

Drugs Included in Panel: isoniazid, rifampin, ethambutol, and pyrazinamide
RESTRICTIONS: Done automatically on initial patient isolate and subsequent isolates with evidence of treatment failure.
CPT CODE: 87190 x 5
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Usually within 14 days of receipt or isolation of organism.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX
ANTIMICROBIAL SUSCEPTIBILITY TESTING, SECOND-LINE DRUGS

RESTRICTIONS: Done principally on MDRTB isolates (resistant to 2 or more first-line drugs)
CPT CODE: 87190 x variable
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Varies
COMMENTS: Sent to National Jewish Mycobacterial Reference Lab, Denver, CO.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE

RESTRICTIONS: None
CPT CODE: 87015, 87206, 86116
SPECIMEN: See [Appendix F](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Smear available within 1 working day. Negative culture results available after 6 weeks of Incubation.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM TUBERCULOSIS COMPLEX
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: NUCLEIC ACID PROBE, 16S rDNA SEQUENCING, AND CONVENTIONAL BIOCHEMICALS

RESTRICTIONS: None
CPT CODE: 86118, 87555
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results available within 3 working days. Biochemical identification varies.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
MOLECULAR SUBTYPING**

**METHODOLOGY: SPOLIGOTYPING, MIRU TYPING, RESTRICTION FRAGMENT LENGTH
POLYMORPHISM**

RESTRICTIONS: Done at the request of epidemiology staff only.

CPT CODE: N/A

SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.

SHIPPING: Ship at room temperature, sealed culture system.

TURNAROUND: Not available

COMMENTS: Sent to regional genotyping laboratory

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOPLASMA PNEUMONIAE
IgM AND IgG ANTIBODY DETECTION**

METHODOLOGY: INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None

CPT CODE: 86738

SPECIMEN: Serum (0.5ml)

SHIPPING: Ship at refrigeration temperature

TURNAROUND: 1 working day from receipt of specimen

**NEISSERIA GONORRHOEAE
NUCLEIC ACID DETECTION**

METHODOLOGY: NUCLEIC ACID PROBE

RESTRICTIONS: None.

CPT CODE: 87590

SPECIMEN: Endocervical / urethral swab (collected with Gen-Probe specific collection kits only)

SHIPPING: Refrigeration temperature, specimen must arrive at laboratory within 7 days of collection

TURNAROUND: Daily

COMMENTS: This method is not recommended for medico legal cases and is not acceptable for throat, conjunctival, or rectal swabs or for antimicrobial sensitivity testing. Only culture procedures are recommended for these situations. The IBL will continue to perform culture tests for *N. gonorrhoeae* under these circumstances.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**NEISSERIA GONORRHOEAE
DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING

RESTRICTIONS: None

CPT CODE: 87081

SPECIMEN: Inoculated MTM or JEMBEC plates

SHIPPING: Ship at room temperature ASAP otherwise incubate plates for 18-24 hrs. at 5-10% CO₂ before sending.

TURNAROUND: 2 days for a negative culture

COMMENTS: Non-genital sites only

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature.
TURNAROUND: 2 working days upon receipt of culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA MENINGITIDIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 6
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1-2 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NOROVIRUS
DETECTION OF RNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Stool, fresh or in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is used for investigations of gastroenteritis outbreaks only. No single diagnostic specimens accepted.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NORWALK-LIKE VIRUS
SEE: [NOROVIRUS](#)

OVA AND PARASITES, ROUTINE
SEE: [PARASITE EXAMINATION, INTESTINAL](#)

PARACOCCIDIODES BRASILIENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE
SEE: [FUNGUS IDENTIFICATION](#)

PARAINFLUENZA VIRUS 1, 2, AND 3
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87252 (Culture)
SPECIMEN: Nasal swab sample in viral transport medium
Throat swab in viral transport medium
Aspirate/Wash (1ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative culture results available within 14 days. Direct Fluorescent Antibody within 1-2 days
COMMENTS: Dry swabs, wood, and calcium alginate swaps are unacceptable

PARASITE EXAMINATION, BLOOD

SEE ALSO: [PLASMODIUM](#)

METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD SMEARS

Agents Detected: *Plasmodium* spp., *Trypanosoma* spp., microfilariae, *Babesia* spp.
RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry and EDTA blood tube - filled
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature
TURNAROUND: Within 1 working day
COMMENTS: Examination of blood films collected every 6-8 hours for up to 3 days may be to diagnose or rule out infection.

PARASITE EXAMINATION, INTESTINAL DETECTION IN STOOL

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, TRICHROME STAIN, ACID-FAST STAIN

Agents Detected: Eggs and larvae of intestinal helminths, cysts and trophozoites of intestinal protozoa, and oocysts of coccidia (Routine O&P)
RESTRICTIONS: None
CPT CODE: 87177, 88313
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL. Call (208)334 2235 ext 264)
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended for detection of intestinal parasites.

PARASITE IDENTIFICATION (ADULT PARASITE) IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: GROSS OR MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87169
SPECIMEN: Whole worm, scolex, or proglottids, in saline or 10% formalin or 70% alcohol
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days

PARASITE IDENTIFICATION, BLOOD IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

SEE ALSO: [PLASMODIUM](#)

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Transport slides in protective holder at room temperature.
TURNAROUND: Within 3 working days

PARASITE IDENTIFICATION (EGGS, LARVAE, CYSTS) IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Prepared specimen concentrate
Stained or unstained slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 working day

PERTUSSISSEE: [BORDETELLA PERTUSSIS](#)

PFGESEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

PINWORMSEE: [ENTEROBIUS VERMICULARIS](#)

PLAGUESEE: [YERSINIA PESTIS](#)

PLASMODIUM SPP.**CONFIRMATION AND SPECIES IDENTIFICATION OF REFERRED SPECIMENS****METHODOLOGY: MICROSCOPIC EXAMINATION**

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature
TURNAROUND: Not available

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

PLASMODIUM SPP.**DETECTION IN BLOOD****METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD SMEARS**

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature
TURNAROUND: Within 1 working day of specimen receipt

PLESIOMONAS SHIGELLOIDES**DETECTION IN STOOL****METHODOLOGY: CULTURE**

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Not available

PLESIOMONAS SHIGELLOIDES**IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE****METHODOLOGY: BIOCHEMICAL TESTING**

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 4-6 working days

PNEUMONIC PLAGUE

SEE: [YERSINIA PESTIS](#)

POLIOVIRUS

SEE: [ENTEROVIRUS](#)

PONTIAC FEVER

SEE: [LEGIONELLA SPP.](#)

PULSED FIELD GEL ELECTROPHORESIS

RESTRICTIONS: Automatically performed on all isolates of Salmonella, Shigella, and hemorrhagic E. coli submitted to the IBL. Performed for epidemiological purposes only. Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: N/A

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Not available

Q FEVER

SEE: [COXIELLA BURNETII](#)

RABIES VIRUS

DIRECT DETECTION IN ANIMAL BRAIN TISSUE

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: Contact virology at (208)334-2235 before requesting this test.

CPT CODE: N/A

SPECIMEN: Submit removed head (over 8 lbs) to the Animal Health Lab (208) 332-8570; bats may be submitted directly to the IBL.

SHIPPING: Refrigeration temperature, do not freeze.

TURNAROUND: 2 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

RASH ILLNESS PANEL

Tests Included in Panel: Culture, molecular, or immunological tests, including methods for Varicella Zoster Virus, Herpes Simplex Virus Types 1 & 2, Vaccinia, orthopox viruses and bacteria as indicated by symptomology
Tests may be performed individually. See individual agent listing.

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE:

SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.

Touch-prep (slide) of vesicular fluid

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Not available

COMMENTS: These tests are recommended for patients exhibiting acute, generalized, vesicular or pustular rash illness. For details on evaluating patients see the CDC poster "Evaluating Patients for Smallpox" (<http://www.bt.cdc.gov/agent/smallpox/diagnosis/index.asp>)

RESPIRATORY SYNCYTIAL VIRUS

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY (DFA)

RESTRICTIONS: None

CPT CODE: 87252, 87253

SPECIMEN: Nasal swab in viral transport medium

Throat swab in viral transport medium

Nasal wash/aspirate (1ml)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Negative culture in 14 days. DFA results available within 1 day.

COMMENTS: Dry swab, wood and calcium alginate swab unacceptable

**RICIN TOXIN DETECTION
DETECTION IN NON-CLINICAL SAMPLES**

METHODOLOGY: TIME-RESOLVED FLUORESCENCE, PCR

RESTRICTIONS: For investigation of intentional release (terrorism) only. Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: N/A
SPECIMEN: Plant material in envelope
Paper
Powder
Water, Soil, Food, Drink
Environmental surface wipe
TURNAROUND: Not available

**ROTAVIRUS
DETECTION OF ANTIGEN IN CLINICAL SAMPLES**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 87425
SPECIMEN: 1 g stool or rectal swabs collected in containers that do not contain preservatives. Rectal swabs must contain 30-40 mg of raw stool.
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 working day of receipt of specimen

ROUTINE O&P
SEE: [PARASITE EXAMINATION, INTESTINAL](#)

RSV
SEE: [RESPIRATORY SYNCYTIAL VIRUS](#)

**RUBELLA VIRUS
IgM AND IgG ANTIBODY DETECTION**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86762
SPECIMEN: Acute phase serum or paired sera (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: IgG 1X per week, IgM upon request
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

RUBEOLA VIRUS
SEE: [MEASLES VIRUS](#)

SAINT LOUIS ENCEPHALITIS
SEE: [ARBOVIRUS TEST LISTINGS](#)

**SALMONELLA SPP.
ANTIMICROBIAL SUSCEPTIBILITY TESTING**
SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

SALMONELLA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87045
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
Rectal swab
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days. Positive results phoned to submitter as soon as available.
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 15
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP.
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

SARS
SEE: [SEVERE ACUTE RESPIRATORY SYNDROME](#)

SCHISTOSOMA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CONCENTRATION AND MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH)
Urine - 15 ml, no preservatives
SHIPPING: Ship preserved stool at room temperature, urine at refrigeration temperature.
TURNAROUND: Within 3 working days
COMMENTS: *S. haematobium* eggs are usually detected in urine but may be found in stool. Eggs of other *Schistosoma* spp. are found primarily in stool. Multiple examinations may be to detect eggs in light or chronic infections.

SCHISTOSOMA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED SAMPLES
SEE: [PARASITE IDENTIFICATION](#)

SCHISTOSOMIASIS
SEE: [SCHISTOSOMA SPP.](#)

**SEVERE ACUTE RESPIRATORY SYNDROME (SARS)
TOTAL ANTIBODY**

**METHODOLOGY: ENZYME IMMUNOASSAY (LABORATORY RESPONSE NETWORK
PROTOCOL)**

RESTRICTIONS: Call the laboratory (208)334-2235 or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87449

SPECIMEN: Serum (1 ml), Acute and 28 day convalescent

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Within 1 working day of specimen receipt

COMMENTS: Positive results will be confirmed by CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**SEVERE ACUTE RESPIRATORY SYNDROME (SARS)
DETECTION OF RNA IN CLINICAL SAMPLES**

METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87798

SPECIMEN: Nasopharyngeal wash/aspirate (0.5 ml)
Nasopharyngeal/oropharyngeal swab in viral transport medium
Bronchoalveolar lavage, pleural fluid, tracheal aspirate in sterile virals.
Stool in clean, dry leak-proof container (at least 10 cc)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 1 day

COMMENTS: This test is for research use only. Positive test results are to be considered preliminary until confirmed by the CDC.

**SHIGELLA SPP.
DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE

RESTRICTIONS: None

CPT CODE: 87045

SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml).
Unpreserved stool samples must be received within 2 hours of collection.

SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.

TURNAROUND: Negative results available within 2-4 working days. Positive results phoned to submitter as soon as available.

COMMENTS: Included in routine Enteric Bacterial Culture

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**SHIGELLA SPP.
ANTIMICROBIAL SUSCEPTIBILITY TESTING**

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

**SHIGELLA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None

CPT CODE: 87077, 87147 x 5

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Identification from pure culture available within 4-6 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SHIGELLA SPP.
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

SMALLPOX

SEE: [RASH ILLNESS PANEL](#)

RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

SPOROTHRIX SCHENKII
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE
SEE: [FUNGUS IDENTIFICATION](#)

STAPHYLOCOCCAL ENTEROTOXIN B
DETECTION IN NON-CLINICAL SAMPLES
METHODOLOGY: TIME-RESOLVED FLUORESCENCE

RESTRICTIONS: For investigation of intentional release (terrorism) only. Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: N/A

SPECIMEN: Food
Soil
Water
Environmental surface wipe

TURNAROUND: Not available

STAPHYLOCOCCUS AUREUS, GASTROINTESTINAL DISEASE
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87046 (Stool)

SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.

SHIPPING: Ship stool at room temperature, food at refrigeration temperature.

TURNAROUND: Not available

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA)
CONFIRMATION OF VANCOMYCIN MIC \geq 32 UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None

CPT CODE: 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 2-5 working days of specimen receipt

COMMENTS: Call Idaho Bureau of Laboratories (208)334-2235 immediately if GRSA/VRSA is suspected.

STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE (GISA/VISA)
CONFIRMATION OF VANCOMYCIN MIC \geq 4 UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None

CPT CODE: 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 2-5 working days of specimen receipt

COMMENTS: Call the Idaho Bureau of Laboratories at (208) 334-2235 immediately if GISA/VISA is suspected.

STAPHYLOCOCCUS AUREUS, METHICILLIN RESISTANT (MRSA)
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None
CPT CODE: 87077 (Identification), 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-3 working days

STAPHYLOCOCCUS AUREUS, METHICILLIN RESISTANT (MRSA)
MOLECULAR SUBTYPING

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

STREPTOCOCCUS PNEUMONIAE
ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

STREPTOCOCCUS PNEUMONIAE
IDENTIFICATION/CONFIRMATION/SEROTYPING OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, CAPSULAR SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Biochemical testing within 2-4 working days
COMMENTS: Sent to CDC for serotyping—turnaround variable
Invasive disease caused by this agent be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STREPTOCOCCUS, GROUP A
ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

STREPTOCOCCUS, GROUP A
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-4 working days
Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STREPTOCOCCUS, GROUP B
ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

***STREPTOCOCCUS*, GROUP B**
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-4 working days

***STRONGYLOIDES* SPP.**
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH); Duodenal contents (aspiration or Entero-Test capsule)
Identification/confirmation: prepared fecal or duodenal sample
Other specimen types, contact laboratory for information
SHIPPING: Ship preserved stool at room temperature, duodenal contents at refrigeration temperature.
TURNAROUND: Within 3 working days

***STRONGYLOIDES* SPP.**
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE
SEE: [PARASITE, IDENTIFICATION](#)

SYPHILIS
SEE: [TREPONEMA PALLIDUM](#)

***TAENIA* SPP.**
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE
SEE: [PARASITE EXAMINATION, INTESTINAL](#) AND [PARASITE IDENTIFICATION](#)

TETANUS
SEE: [CLOSTRIDIUM TETANI](#)

TOXIC SHOCK
SEE: [STAPHYLOCOCCUS AUREUS \(TOXIC SHOCK\)](#) AND [STREPTOCOCCUS, GROUP A \(TOXIC SHOCK\)](#)

TREPONEMA PALLIDUM
ANTIBODY DETECTION

METHODOLOGY: USR, TP-PA

RESTRICTIONS: None
CPT CODE:
SPECIMEN: Serum (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 3x per week, TP-PA 1x per week
COMMENTS: 99001(TP-PA)
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

TREPONEMA PALLIDUM
ANTIBODY DETECTION

METHODOLOGY: VDRL

RESTRICTIONS: None
CPT CODE: 86592
SPECIMEN: CSF (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1X per week

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

TRYPANOSOMA BRUCEI SPP.

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
CSF - as much as possible
SHIPPING: Ship at room temperature. Transport EDTA blood and CSF to lab as soon as possible.
Transport slides in protective holder.
TURNAROUND: Within 1 working day of specimen receipt
COMMENTS: Trypomastigotes are present in the blood in largest numbers during febrile periods. Examination of multiple daily blood samples may be necessary for detection.

TRYPANOSOMA BRUCEI SPP.

IDENTIFICATION/CONFIRMATION IN REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Within 1 working day of specimen receipt

TRYPANOSOMA CRUZI

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
Tissue imprints, dried
Lesion exudate smears, dried
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Usually within 1 working day of specimen receipt

TRYPANOSOMA CRUZI

IDENTIFICATION/CONFIRMATION IN REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Usually within 1 working day of specimen receipt

TRYPANOSOMIASIS, AFRICAN

SEE: [TRYPANOSOMA BRUCEI SPP.](#)

TRYPANOSOMIASIS, AMERICAN

SEE: [TRYPANOSOMA CRUZI](#)

TUBERCULOSISSEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

TULAREMIASEE: [FRANCISELLA TULARENSIS](#)

UNDULANT FEVERSEE: [BRUCELLA SPP.](#)

VACCINIA VIRUS**DETECTION OF DNA IN CLINICAL SAMPLES**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)**

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Contact laboratory for transport instructions.
TURNAROUND: 1 day
COMMENTS: This test is for research use only.

VANCOMYCIN RESISTANT STAPHYLOCOCCUS AUREUS (VRSA)SEE: [STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)

VARICELLA ZOSTER VIRUS**ANTIGEN DETECTION**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: DIRECT FLUORESCENT ANTIBODY**

RESTRICTIONS: None
CPT CODE: 87290
SPECIMEN: Scraping or swab from base of lesion in viral transport medium
Primary viral isolate in tissue culture
SHIPPING: Ship clinical sample at refrigeration temperature.
Ship primary isolate at room temp.
TURNAROUND: Within 1 working day of specimen receipt

VARICELLA ZOSTER VIRUS**DETECTION IN CLINICAL SAMPLES**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: CULTURE**

RESTRICTIONS: None
CPT CODE: 87252
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion in viral transport medium.
Vesicular fluid sample in viral transport medium
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 14 days to confirm negative culture
COMMENTS: Dry swab, wood swab, and calcium alginate swabs not acceptable

VARICELLA ZOSTER VIRUS
DETECTION OF DNA IN CLINICAL SAMPLES
SEE ALSO: [RASH ILLNESS PANEL](#)

METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is for research use only.

VARICELLA ZOSTER VIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: none
CPT CODE: 86787
SPECIMEN: Acute phase serum or paired sera (0.5 ml)
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: 1x per week, IgM on request

VARIOLA VIRUS

SEE: [RASH ILLNESS PANEL](#)

RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

VIBRIO SPP. (INCLUDING V. CHOLERAЕ)
ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

VIBRIO SPP. (INCLUDING V. CHOLERAЕ)
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, BIOTYPING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

VIBRIO SPP. (INCLUDING V. CHOLERAЕ)
DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available in 3-4 working days. Positive results phoned to submitter as soon as available.

VIRAL GASTROENTERITIS

SEE: INDIVIDUAL AGENTS: [NOROVIRUS](#), [ADENOVIRUS](#), [ROTAVIRUS](#)

VIRAL MENINGITIS

SEE: [ENTEROVIRUS](#)

VISA (VANCOMYCIN INTERMEDIATE STAPHYLOCOCCUS AUREUS)

SEE: [STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE \(GISA/VISA\)](#)

VRSA (VANCOMYCIN RESISTANT STAPHYLOCOCCUS AUREUS)

SEE: [STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)

VZV

SEE: [VARICELLA ZOSTER VIRUS](#)

WEST NILE VIRUS DETECTION OF RNA

METHODOLOGY: PCR

WNV PCR may be performed as part of the Arbovirus PCR Panel.

RESTRICTIONS: Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87798

SPECIMEN: Mosquitoes (collected by trapping)
Birds (oral swab on corvids, tissue on raptors)

SHIPPING: Ship at refrigeration temperature

TURNAROUND: 1 day for birds, 2 days for mosquitoes

COMMENTS: This test is for research use only.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WEST NILE VIRUS IgM AND IgG ANTIBODY DETECTION

SEE ALSO: [ARBOVIRUS SEROLOGY PANEL](#)

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 86790

SPECIMEN: Serum (1 ml)
CSF (1.5-2.0 ml)

SHIPPING: Ship within 24 hours at refrigeration temperature.

TURNAROUND: Within 1- working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WESTERN EQUINE ENCEPHALITIS

SEE: [ARBOVIRUS TEST LISTINGS](#)

WHOOPING COUGH

SEE: [BORDETELLA PERTUSSIS](#)

WORM IDENTIFICATION

SEE: [PARASITE IDENTIFICATION \(ADULT PARASITE\)](#)

**YEAST IDENTIFICATION
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: CULTURE MORPHOLOGY, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87106
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Varies, usually within 2 weeks

***YERSINIA ENTEROCOLITICA*
DETECTION IN STOOL**

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 3-4 working days. Positive results phoned to submitter as soon as available.
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***YERSINIA ENTEROCOLITICA*
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING, BIOTYPING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA ENTEROCOLITICA

MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

***YERSINIA PESTIS*
ANTIBODY DETECTION**

RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.
CPT CODE: 86793
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Sent to CDC.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA PESTIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.

CPT CODE: 87081

SPECIMEN: See [Appendix G](#)

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 4 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

YERSINIA PESTIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

Tests May Include: Biochemical, molecular, and immunological methods

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room or refrigeration temperature.

TURNAROUND: 2-3 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

APPENDIX A. Specimen Requirements for *Bacillus anthracis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Cutaneous anthrax	Vesicle Swab	2 swabs	Vesicle should be unroofed and 2 sterile, dry swabs should be soaked in the vesicular fluid.
	Vesicle Aspirate	1 ml	An aspirate of the fluid is also an appropriate specimen.
	Eschar Swab	2 swabs	Roll swabs beneath the edge of the eschar without removing it.
	Fresh/frozen tissue	1 punch biopsy	For specialty testing, must be preapproved by IBL
Gastrointestinal anthrax	Stool	5 g	If unable to obtain stool, obtain rectal swab by inserting swab 1 inch beyond anal sphincter.
	Rectal swab	1 swab	
Inhalation anthrax	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
	Sputum	1 ml	If patient has a productive cough, this is the specimen of choice in the early course of the disease
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
Meningitis	CSF	1 ml	Centrifuge ≥1 ml of fluid
Blood	EDTA blood	1 ml	For molecular testing, must be pre-approved by IBL
	Serum/plasma	2 ml	To be sent to CDC for testing, must be pre-approved by IBL
	Blood culture	5 ml	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Other 1 ml	Pleural fluid	1 ml	

APPENDIX B. Specimen Requirements for *Brucella* spp.

Specimen Type	Minimum Volume	Collection Comments
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Multiple specimens increase possibility of obtaining a positive culture.
Bone Marrow blood culture in bottle fluid	1 ml	Collect appropriate bone marrow volume per manufacturer's recommendation. Some blood culture systems are appropriate for bone marrow.
Abscess material	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Lymph node, liver/spleen biopsy	1-5 g	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Synovial fluid, CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Serum: Acute and Convalescent	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.

APPENDIX C. Specimen Requirements for *Burkholderia* spp.

Specimen type	Minimum Volume	Collection Comments
Abscess material, tissues	1 ml	Collect tissues and fluids rather than swabs, when possible. Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Sputum	1 ml	
Skin swab	1 swab	
Urine	1 ml	Collect a midstream clean-catch or a catheterized specimen.
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible.
Throat or Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Serum	1 ml	Collect in serum separator tube (SST™) or red top tube. For molecular testing, must be pre-approved by IBL.

APPENDIX D. Collection and Transport of Samples for Botulism

Testing

Note: Testing (toxin detection and culture) is performed only for patients exhibiting symptoms consistent with botulism. The Idaho Bureau of Laboratories does not currently perform toxin testing but forwards specimens to the Washington Department of Health Laboratories for testing. Botulism testing requires pre-approval by the Division of Health. Please ask the requesting physician to contact the state Office of Epidemiology and Food Protection (208-334-5939) to order this test. A list of patient medications should accompany specimens, since some medications may interfere with toxin detection.

Table 1. Suspected Foodborne Botulism

Acceptable Specimens	Required Volume/Comments	Toxin Assay (T) or Culture (C) Performed
Serum*	5 ml, (less results in incomplete testing)	T
Gastric contents	20 ml, anaerobic transport system	T, C
Vomit	20 ml, anaerobic transport system	T, C
Stool	25-50 g (walnut-size) collected before anti-toxin treatment.	T, C
Sterile water enema	Collect using a minimal amount of water, before anti-toxin treatment.	T, C
Implicated consumed food – commercial or home-prepared	Leave foods in their original containers, if possible, or transfer to sterile, leak-proof containers. Empty containers with remnants of food are acceptable.	T, C
Unopened home-prepared food from the batch consumed by the patient	Leave foods in their original containers.	T, C
Unopened commercial products	Products are referred immediately to the FDA.	T, C

*Priority sample type

Table 2. Suspected Infant Botulism

Acceptable Specimens	Required Volume/Comments	Toxin Assay (T) or Culture (C) Performed
Stool*	As above.	T, C
Sterile water enema	As above.	T, C
Serum	3 ml (0.5 ml will allow screening but incomplete testing)	T
Rectal swab	More useful for culture than toxin detection.	C
Potential sources	Include honey, opened formula (Unopened commercial products are referred to the FDA.), other foods/liquids fed to the infant. Environmental sampling is discouraged.	C

*Priority sample type

Table 3. Suspected Wound Botulism

Acceptable Specimens	Required Volume/Comments	Toxin Assay (T) or Culture (C) Performed
Serum*	5 ml (less results in incomplete testing)	T
Wound swab	Anaerobic transport system	C
Tissue or exudate	Anaerobic transport system	C
Stool	To rule out foodborne botulism. Collect as above.	T, C

*Priority sample type

Table 4. Suspected Intentional Toxin Release

Acceptable Specimens	Required Volume/Comments	Toxin Assay (T) or Culture (C) Performed
Clinical material	Serum, stool, sterile water enema as above.	T
Food	As above.	T
Environmental swabs	Send in individual clean, dry containers	T

Shipping Requirements

- Notify the laboratory in advance (208-334-2235).
- Collect and transport clinical samples in sterile, leak-proof containers.
- Leave foods in their original containers, if possible, or place in sterile leak-proof, unbreakable containers. Place each container in a separate sealed plastic bag to prevent cross-contamination during shipping. Label completely.
- Ship by the most rapid means available.
- Store and ship specimens in anaerobic transport systems at room temperature. Store and ship all other specimens at 4°C.
- Freezing should be avoided as it decreases recovery of *C. botulinum* and may decrease toxin activity. However, if a delay of more than several days cannot be avoided, freeze samples for storage and ship frozen.

APPENDIX E. Specimen Requirements for *Francisella tularensis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Pulmonary	Sputum, throat swab, tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Ulceroglandular	Ulcer scraping, biopsy, or swab (eye)	1 g 1 swab	Specimen from advancing edge of the lesion not central necrotic area, which is usually secondarily infected
Glandular	Lymph node aspirate, tissue	1 ml 1-5 g	
Septicemia	Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Meningitis	CSF	1 ml	Centrifuge ≥1 ml of fluid
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.
Postmortem	Lymph, lung, liver, spleen tissue, bone marrow, CSF	1-5 g 1 ml	

APPENDIX F. Specimen Requirements for Acid Fast Bacilli (AFB)

Table 1. Requirements for Clinical Specimens

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
ABSCCESS CONTENTS, ASPIRATED FLUID (TRANSTRACHEAL ASPIRATES, WOUND MATERIAL)	Collect as much as possible in a sterile leak proof container	Cleanse skin with alcohol before aspirating sample.	<ol style="list-style-type: none"> 1. Dry swab 2. Specimen with needle attached
BLOOD	10-ml SPS (yellow top) blood collection tube is preferred. Heparinized blood (green top) is also acceptable.	Disinfect site as for routine blood culture. Mix tube contents immediately after collection. SPS is the referred anticoagulant, as it enhances growth of mycobacteria.	<ol style="list-style-type: none"> 1. Collected in EDTA (inhibits mycobacterial growth even in trace amounts). 2. <10 ml adult, <5 ml pediatric
BODY FLUIDS (PLEURAL, PERICARDIAL, PERITONEAL, ETC.)	Collect as much as possible (10 ml minimum) in a sterile leak proof container. Use an SPS blood collection tube for extremely blood specimens.	Disinfect site with alcohol if collecting by needle and syringe. Since many of these fluids may contain fibrinogen, it may be necessary to add anticoagulant (SPS or heparin) to collection containers.	<10 ml adult <1 ml pediatric
BONE	Submit in sterile container without fixative or preservative.		Specimen submitted in formalin
BONE MARROW	Collect as much as possible in SPS blood collection tube. 5-10 ml is optimal specimen.	Collect aseptically. Mix SPS tube contents immediately following collection.	Collected in EDTA (inhibits mycobacterial growth even in trace amounts).
BRONCHOALVEOLAR LAVAGE OR BRONCHIAL WASHINGS	≥5 ml in sterile leak proof container.	Avoid contaminating specimen with tap water. Saprophytic mycobacteria may produce false positive culture or smear results.	<5 ml adults <1 ml pediatric
BRONCHIAL BRUSHINGS	Sterile leak proof container		
CSF	≥2 ml in sterile leak proof container	Use maximum volume attainable, for maximum recovery. A high protein, lymphocytosis, and low glucose are typical of tuberculous meningitis.	<2 ml adults

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
GASTRIC ASPIRATE/LAVAGE FLUID	≥5-10 ml (50 ml is optimal) in sterile leak proof container. Early morning, fasting specimen is optimal in order to obtain sputum swallowed during sleep.	Collect on three consecutive mornings. Use sterile saline. Adjust to neutral pH with 100 mg of sodium carbonate if specimen cannot be processed within 4 hours of collection.	<ol style="list-style-type: none"> 1. Specimen that has not been neutralized 2. <5 ml 3. Multiple specimens taken from same day
SKIN LESION MATERIAL	Submit biopsy or aspirate specimen in sterile container without fixative or preservative.	For cutaneous ulcer, collect biopsy sample from periphery of lesion, or aspirate material from under margin of lesion. Notify laboratory if infection was acquired outside of U.S.	<ol style="list-style-type: none"> 1. Swab specimens
SPUTUM	5- 10 ml in sterile, leak proof container. Early morning specimen from deep, productive cough on at least 3 consecutive days. For follow-up of patients on therapy, collect at weekly intervals beginning 3 weeks after initiation of therapy.	Expectorated sputum: Instruct patient as to difference between saliva and sputum. Have patient rinse mouth with water before collecting sputum to minimize contamination with food, mouthwash, oral drugs, etc. Induced sputum: Use sterile hypertonic saline. Indicate on request if specimen is induced, as these watery specimens resemble saliva.	<ol style="list-style-type: none"> 1. 24 hour pooled specimens 2. Multiple specimens taken from same day 3. <5 ml of specimen 4. Expectorated sputum that resembles saliva
STOOL	≥1 g in sterile leak proof container		<ol style="list-style-type: none"> 1. Frozen specimens 2. Specimens in preservative
TISSUE BIOPSY (INCLUDING LYMPH NODES)	1 g of tissue, if possible, in sterile container without fixative or preservative	Collect aseptically, avoiding indigenous microbial flora. Select caseous portion if available. Do not immerse in saline or other fluid, or wrap in gauze.	<ol style="list-style-type: none"> 1. Specimen submitted in formalin 2. Freezing decreases yield

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
URINE	Collect as much as possible (minimum, 40 ml) of first morning specimen (catheter, clean catch, midstream), in sterile leak proof container. For suprapubic tap, collect as much as possible.	Collect first morning specimen on 3 consecutive days. Organisms accumulate in bladder overnight, so first morning void provides best yield. Specimens collected at other times are dilute and are not optimal.	<ol style="list-style-type: none"> 24 hour pooled specimen Multiple specimens taken from same day <40 ml adult, <10 ml pediatric unless larger volume is not obtainable

Table 2. Requirements for Referred Cultures or “Culture by Courier”

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	REJECTION CRITERIA
AGAR SLANT (LJ, 7H11, OR OTHER), PLATE (AFB POSITIVE)	Pure culture, visible growth. Screwcap tubes are preferred, but properly transported plates will be accepted if tubes are not available	<ol style="list-style-type: none"> Contaminated Liquefied Broken in transit No visible growth
LIQUID CULTURE SYSTEM BOTTLES (AFB POSITIVE)		<ol style="list-style-type: none"> Broken in transit
PRE_INOCULATED ESP BOTTLE, “CULTURE BY COURIER”	Call Mycobacteriology laboratory (208)334-2235 to make arrangements and for bottles and growth supplement	<ol style="list-style-type: none"> Broken in transit

APPENDIX G. Specimen Requirements for *Yersinia pestis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Bubonic Plague	Lymph node (bubo) Aspirate	2 ml	
Septicemic Plague	Blood culture	Refer to manufacturer's recommendation	A series of 3 venipuncture specimens taken 15-30 minutes apart is most effective. Collect prior to antibiotic use if possible.
Pneumonic Plague	Sputum	1 ml	"Bloody" sputum is a hallmark of this disease.
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	Bronchial or tracheal aspirates are the specimens of choice.
	Nasal/Throat swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be preapproved by IBL.
Postmortem	Lymph and lung tissue, bone marrow	1-5 g 1 ml	

Analytical Methods in Clinical Chemistry

Pathogen or Test Type	Test or Method	Sample Required	Minimum Volume Required	Special Collection Procedures	Turn-around Time
Antimony, Barium, Beryllium, Cadmium, Cesium, Cobalt, Lead, Molybdenum, Platinum, Thallium, Tungsten, and Uranium*	Inductively Coupled Plasma-Mass Spectrometry	Urine	2 mL	Sterile plastic screw cap urine cup. Avoid contamination of urine by contact with dust, dirt, etc., from improper handling. Short-term storage at 2-4°C is acceptable. Transport and store frozen	4-20 hrs
Cadmium, Lead, and Mercury**	Inductively Coupled Plasma-Mass Spectrometry	Whole Blood	0.25 mL	Vacutainer. If more than one evacuated tube of blood is to be drawn from an individual, the trace metals tube should be drawn second or later. Transport and store at $\leq 4^{\circ}\text{C}$	4-20 hrs
Hydrogen cyanide***	Headspace Gas Chromatography with Mass Selective Detection	Whole Blood	0.75 mL	Vacutainer containing EDTA or heparin. Refrigerate at $5 \pm 3\text{C}$	2-17 hrs
CDC Rapid Toxic Screen	Available for request following suspected chemical terrorism events Multi-test process conducted at CDC, Atlanta GA.	Whole Blood and Urine	Call StateComm to initiate LRN response	CDC guidance for collecting and shipping specimens from people potentially exposed to chemical terrorism agents is available on the following pages	Results in less than 36 hours after specimen receipt by CDC

Note: For each lot number of specimen containers used for collection, please provide two empty unopened containers to serve as blanks for measuring background contamination. Although blanks do not have to be labeled, please secure their container tops in the same fashion as collected blood tubes and urine cups.

* Test scheduled to be available by March 2005

** Test scheduled to be available by December 2005

*** Test scheduled to be available by August 2005

CLINICAL CHEMISTRY OVERVIEW OF THE CHEMICAL – LABORATORY RESPONSE NETWORK AND THE IDAHO RESPONSE TO SUSPECTED CHEMICAL TERRORISM

The mission of the Centers for Disease Control and Prevention (CDC) - Laboratory Response Network (LRN; <http://www.bt.cdc.gov/lrn>) is to integrate laboratory capabilities across the country in order to quickly respond to public health threats and emergencies. These threats and emergencies may include emerging infectious diseases and biological or chemical terrorism. The Idaho Bureau of Laboratories (IBL) has been a biological agent reference laboratory in the LRN since the year 2000. As such, the IBL has been responsible for investigating clinical samples for a variety of biological agents, including those that cause smallpox, anthrax, and plague. In late 2003, the IBL began participation in a new focus area within the LRN, giving Idaho the ability to detect select chemical terrorism agents and metabolites in clinical samples.

The Centers for Disease Control and Prevention (CDC) Laboratory Response Network (LRN) is available to assist Idaho's hospital and clinic laboratories following suspected chemical terrorism events. Specimens from up to 40 symptomatic patients can be analyzed by the CDC Rapid Toxic Screen. This process tests for 150 chemical agents (or metabolites) with results reported in less than 36 hours following sample receipt. If you suspect chemical exposures in your community and wish to initiate a LRN response, contact the Idaho Bureau of Laboratories (IBL) through StateComm (1-800-632-8000). A conference call involving the CDC Rapid Response Team will determine if, and how, samples will be accepted by the CDC. You may be asked to ship diagnostic samples to the IBL or to the CDC. Alternatively, the CDC Rapid Response Team may be available to arrive at a local airport to assist with sampling and the transport of specimens back to the CDC. If the IBL has the technical means necessary to test for the chemicals identified by the CDC, it will test samples beyond the initial 40 symptomatic patients. If the IBL is not equipped for the analysis, further samples may be forwarded to the CDC or other laboratories in the LRN. If you have any questions or concerns about the LRN anticipated clinical sample flow following a chemical incident, please contact Ian Elder, Ph.D., Chemical Terrorism Laboratory Coordinator at IBL: (208) 334-2235 ext 269 or elderi@idhw.state.id.us.



Shipping Instructions for Specimens Collected from People Potentially Exposed to Chemical Terrorism Agents

Collecting specimens

Required specimens

Unless you are otherwise directed, collect the following specimens from each person who may have been exposed:

- **Urine—Collect at least 25 mL.** Use a screw-capped plastic container. Please do not overfill. **Freeze as soon as possible** (-70°C or dry ice preferred). If possible, ship the specimen on dry ice. If dry ice is not available, you may ship frozen specimens with freezer packs. **For pediatric patients, collect urine only, unless otherwise directed by CDC.**
- **Whole blood—**Use three 3-, 5-, or 7-mL purple-top (EDTA) tubes, vacuum-fill only (**unopened**). **If collecting in 3 mL purple top tubes, please collect a fourth tube.**
- **Whole blood—**Use one 3-, 5- or 7-mL gray-top **or** one 3-, 5- or 7-mL green-top tube, vacuum-fill only (**unopened**).

Order of collection

Please mark the first purple-top tube of whole blood collected with a “1” using indelible ink. The first purple-top tube of whole blood collected will be used to analyze for blood metals.

Blanks

For **each lot number** of tubes and urine cups used for collection, please provide two empty unopened purple-top tubes, two empty unopened green- or gray-top tubes, and two empty unopened urine cups to serve as blanks for measuring

background contamination. **Note: Although blanks do not have to be labeled, please secure their container tops in the same fashion described below for collected blood tubes and urine cups.**

Labeling

Label specimens with labels generated by your facility. These labels may include the following information: medical records number, specimen identification number, collector's initials, and date and time of collection. **Follow your facility's procedures for proper specimen labeling.** The collector's initials and date and time of collection will allow law enforcement officials to trace the specimen back to the collector should the case go to court and the collector is needed to testify that they collected the specimen.

Information provided on labels may prove helpful in correlating the results obtained from the Rapid Toxic Screen and subsequent analysis with the people from whom the specimens were collected.

Place a single, unbroken strip of waterproof, tamper-evident forensic evidence tape over each specimen top, being careful not to cover the specimen ID labels. This tape must make contact with the specimen container at two points. **The individual placing the evidence tape must identify themselves by writing their initials ½ on the container and ½ on the evidence tape.**

Maintain a list of names with corresponding specimen identification numbers at the collection site to enable results to be reported to the patients.

Packaging

Packaging consists of three components: primary receptacle (blood tubes or urine cups), secondary packaging (materials for protecting primary containers, absorbent material, and waterproof, 95 kPa pressure resistant packaging), and an outer container (Styrofoam-insulated corrugated, fiberboard containers).

Pack and ship these specimens as diagnostic specimens.

Secondary packaging

Blood Tubes—

- Separate each tube of blood collected from other tubes, or wrap tubes to prevent contact between tubes; this may be accomplished in a variety of ways such as a gridded box wrapped with absorbent material and sealed inside a plastic bag, sealable Styrofoam container, blood tube shipment sleeve and transport tube, and individually wrapped tubes sealed inside a plastic bag. **Secondary packaging must have its closure secured with a single strip of tamper-evident forensic evidence tape initialed ½ on the container and ½ on the evidence tape by the individual making the seal.**
- Place absorbent material between the primary receptacle and the secondary packaging. Use enough absorbent material to absorb the entire contents of primary receptacles. **According to 49 CFR 173.199(b), if specimens are**

to be transported by air, either the primary receptacle or the secondary packaging used must be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi). Verify in advance that the manufacturer of either the blood tube or secondary packaging used in your facility is in compliance with the pressure differential requirement.

- To facilitate processing, package blood tubes so that similar tubes are packaged together (e.g., all purple-tops together) and not mixed (i.e., purple-tops and green/gray-tops in the same package).

Urine Cups—

- Separate each urine cup from other urine cups or wrap urine cups to prevent contact between urine cups.
- Place urine cups in secondary packages. A variety of secondary packages may be used, for example, gridded box wrapped with absorbent material and sealed inside a plastic bag or individually wrapped urine cups sealed inside a plastic bag. In either case verify that the urine cup or secondary container complies with the requirements stated in 49 CFR173.199(b). **Secondary packaging must have its closure secured with a single strip of tamper-evident forensic evidence tape initialed ½ on the container and ½ on the evidence tape by the individual making the seal.**

Outer containers

Use Styrofoam-insulated corrugated fiberboard containers (may be available from your transfusion service or send-outs department). **Do not ship frozen urine cups and blood tubes in the same package.**

Blood tubes— Ship at 4°C

- For cushioning, place additional absorbent material in the bottom of the outer container.
- Add a layer of frozen cold packs.
- Place secondary containers on top of the cold packs.
- Place additional cold packs or absorbent material between the secondary containers to reduce their movement within the outer container.
- Place a layer of frozen cold packs on top of the secondary containers.

Urine cups— Ship to ensure specimens remain frozen or freeze while in transport

- For cushioning, place additional absorbent material in the bottom of the outer container.
- **Add a layer of dry ice. Note:** Do not use large chunks of dry ice for shipment, because large chunks have the potential for shattering urine cups during transport.
- Place additional absorbent material between wrapped urine cups to reduce their movement within the outer container.
- **Add an additional layer of dry ice.**

Preparing documentation

Since blood tubes and urine cups are shipped separately, prepare a separate shipping manifest for each. Place each shipping manifest (with specimen identification numbers) in a plastic zippered bag on top of the specimens before closing the Styrofoam lid of the corrugated fiberboard container.

Chain of custody forms do not need to be transported with specimens. Each entity/organization handling the specimens is responsible for the specimens only during the time that they have control of the specimens. Each entity/organization receiving the specimens must sign-off on the chain of custody form of the entity/organization relinquishing the specimens to close that chain. When receiving specimens, each new entity/organization must begin their own chain of custody and have the entity/organization relinquishing the specimens sign their chain of custody to start the chain and indicate that they have transferred the specimens. **When specimens are transferred between entities/organizations, each entity/organization retains their chain of custody forms.**

Note: When the individual relinquishing the specimens (relinquisher) and the individual receiving the specimens (receiver) are not together at the time of specimen transfer, the relinquisher will document on their chain of custody that the receiver is FedEx Tracking Number or have the individual transporting the specimens sign the chain of custody to indicate that they have taken control of the specimens. Likewise, when the receiver receives the specimens, they will document on their chain of custody that the relinquisher is FedEx Tracking Number or the have the individual transporting the specimens sign the chain of custody.

Preparing containers for shipment

- Secure outer container tops and bottoms with filamentous shipping/strapping tape.

- Affix labels and markings adjacent to the shipper's/consignee's address that appears on the package.
- Place a UN 3373 diamond label on the outer package.
- Ensure that two orientation "up" arrows are located on two opposite sides of the outer container.
- Place a label on the outer container that indicates the proper name, "Diagnostic Specimens."
- For those containers with dry ice, place a class 9 label on the outer container. This label must indicate the amount of dry ice in the container, the address of the shipper, and the address of the recipient (in the absence of a shipper's declaration of dangerous goods). This label **must** be placed on the same side of the container as the "Diagnostic Specimens" label.

Shipping specimens

- Follow the guidance provided in your state's chemical terrorism comprehensive response plan.
- **If you are directed to**, ship the specimens to CDC, please ship the specimens to the following address:

CDC
Attn: Dr. Richard Meyer
1600 Clifton Road, NE
Bldg. 8/9
Atlanta, GA 30333
(888) 374-1764

Questions

If you have any questions or problems with specimen packaging or shipment, please e-mail or call one of the following contacts at the CDC's National Center for Environmental Health, Division of Laboratory Sciences (DLS):

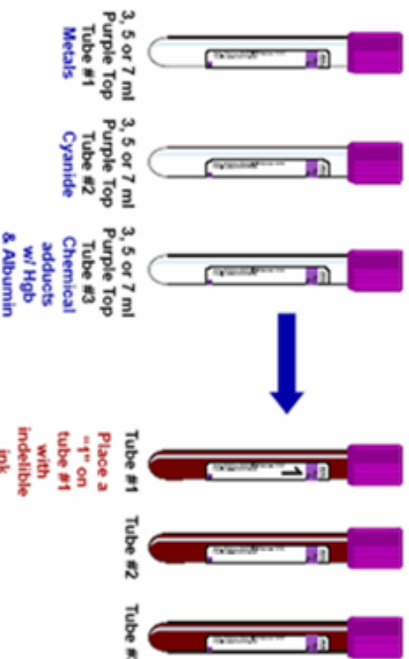
- Charles Buxton, DLS Chemical Terrorism Field Laboratory Coordinator
cbuxton@cdc.gov, [7243001194@pagebb.com](tel:7243001194) (text), or 888-461-6713 (voice or numeric)
- Dr. John Osterloh, DLS Chief Medical Officer, 770-488-7367
- DLS administrative office, 770-488-7950

For each patient, collect the following blood tubes: 3 EDTA (purple top) and 1 Gray or Green Top tube in that order.

FOR PEDIATRIC PATIENTS, COLLECT URINE ONLY UNLESS OTHERWISE DIRECTED BY THE CDC.

Chemical Terrorism Event Specimen Collection

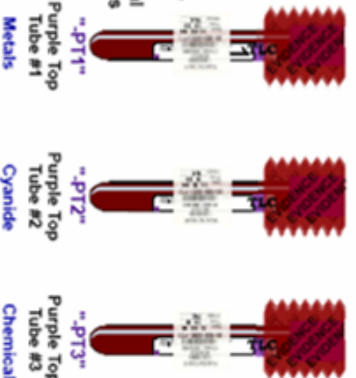
★ Make sure that tube #1 is the first tube drawn, tube #2 is the second tube drawn, etc., and that the correct label is put on each tube!!



Mix the EDTA tubes by inverting 5-6 times.

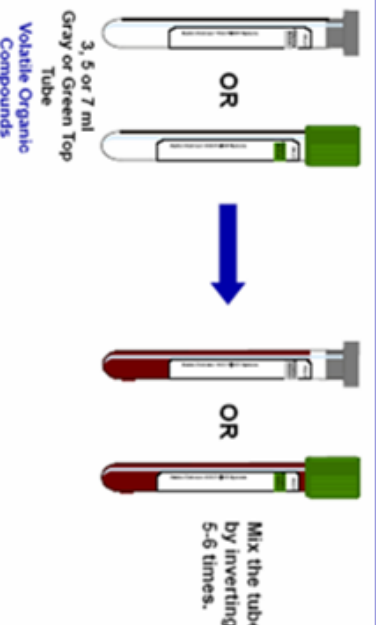
If collecting in 3ml purple top tubes, collect a 4th purple top tube.

Label each EDTA tube with the appropriate label as shown. Place a single strip of evidence tape over the top of the tube as shown, making sure it is secured on both sides of the tube. Initial tube so that your initials are half on the tube and half on the tape.



Store blood samples at 4°C.

★ Make sure the Gray or Green top tube is collected after all the Purple top tubes.



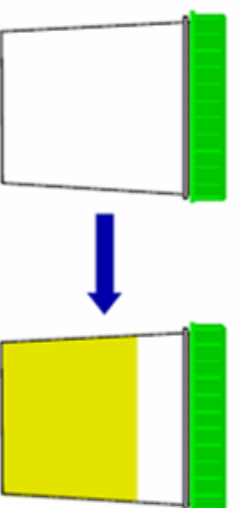
Mix the tube by inverting 5-6 times.

Label either the Gray or Green top tube with the appropriate label as shown. Place a single strip of evidence tape over the top of the tube as shown, making sure it is secured on both sides of the tube. Initial tube so that your initials are half on the tube and half on the tape.



Store blood samples at 4°C.

In addition to the blood tubes, collect at least 25 mls of urine in a screw cap urine cup for each patient.



Label the Urine cup with the appropriate label as shown. Place a single strip of evidence tape across the top of the urine cup as shown, making sure it is secured on both sides of the cup. Initial the cup and tape so that your initials are half on the cup and half on the tape.



Please note the placement of the labels. Labels should be placed on all tubes/cup so that when the tube/cup is standing upright the bar code looks like a ladder. Also note the placement of your initials.

Military Nerve Agents
Organophosphate Pesticides
Incapacitating Agents and Drugs of Abuse
Rich and Saxtoxin
Sulfur and nitrogen mustard
Heavy Metals (Hg, As, Sb, Ba, Be, Cd, Cs, Co, Pb, Mo, Pt, Tl, W, U, Se)
Creatinine correction

Military Nerve Agents
Organophosphate Pesticides
Incapacitating Agents and Drugs of Abuse
Rich and Saxtoxin
Sulfur and nitrogen mustard
Heavy Metals (Hg, As, Sb, Ba, Be, Cd, Cs, Co, Pb, Mo, Pt, Tl, W, U, Se)
Creatinine correction

Freeze urine specimens at $\leq -70^{\circ}\text{C}$.

12/20/04

CDC CT Event

IDAHO BUREAU OF LABORATORIES CHEMICAL TERRORISM - BLOOD COLLECTION & SHIPPING MANIFEST		
Date Shipped: ____ / ____ / ____. Shipped By: _____. Contact Telephone: (____) ____ - ____ Extension _____. Signature: _____. Date Received: ____ / ____ / ____. Received By: _____. Signature: _____.		
Total number of specimens in this container:	Purple-Top Tubes:	
	Green/Gray-Top Tubes:	
Total number of blank tubes provided in this container:	Purple-Top Tubes:	
	Green/Gray-Top Tubes:	

Comments: _____

Shipping Address:

IDAHO BUREAU OF LABORATORIES

CHEMICAL TERRORISM BLOOD COLLECTION AND SHIPPING MANIFEST

Place a “√” in each box for samples shipped.

Place an "X" in each box for samples not shipped.

Please indicate the tube size collected (5 OR 7 ml) in the comments.

PT – Purple Top / GT – Green/Gray Tube

[illegible]

NOTE: Please include 2 empty blood tubes from each lot number collected for background contamination measurement.

IDAHO BUREAU OF LABORATORIES		
CHEMICAL TERRORISM URINE COLLECTION & SHIPPING MANIFEST		
Date Shipped: ____ / ____ / ____.		
Shipped By: _____.		
Contact Telephone: (____) _____ - Extension _____.		
Signature: _____.		
Date Received: ____ / ____ / ____.		
Received By: _____.		
Signature: _____.		
Total number of specimens in this container:	Urine Cups:	
Total number of blank urine cups in this container:	Blank Urine Cups:	

Comments: _____

Shipping Address:

[illegible]

NOTE: Please include 2 empty urine cups from each lot number collected for background contamination measurement.

CDC RAPID TOXIC SCREEN – CHEMICAL TERRORISM - EVIDENCE FORM

Sample(s) Collected By:

Local ID (non-CDC): Number issued by a non-CDC party submitting material to CDC.
CDC NCEH ID: Internal NCEH number/ID, otherwise known as the lab-friendly number.
CDC Sample ID: ID assigned to identify a specimen when first seen by CDC Personnel. This number will be used as the parent number for all samples derived from the first identified and numbered specimen. (DASH number)
CDC Unique ID: (ASTRO Number) ID is unique to CDC and will be assigned to each sample or every specimen entity.

IDAHO BUREAU OF LABORATORIES
DEPARTMENT OF HEALTH AND WELFARE
2220 Old Penitentiary Road
Boise, ID 83712-8299

CHAIN OF CUSTODY FORM

Collected By: _____
(Printed Name) (Signature) (Date) (Time)

Reason for Transfer: _____

Received By: _____
(Printed Name) (Signature) (Date) (Time)

Reason for Transfer: _____

Received By: _____
(Printed Name) (Signature) (Date) (Time)

Reason for Transfer: _____

Received By: _____
(Printed Name) (Signature) (Date) (Time)

Reason for Transfer: _____

Received By: _____
(Printed Name) (Signature) (Date) (Time)

Environmental Microbiology Sampling

Food						
Sample Matrix	Tests or Methods	Refs.	Sample Required	Minimum weight Required /Test	Special Collection Procedures	Holding Time
<i>Bacillus cereus</i> , food	FOBAC	BAM	Food	25 g		NA
<i>Campylobacter</i> culture, food	FOCPY	BAM	Food	25 g	Contact lab	NA
<i>Clostridium perfringens</i> , food	FOANP	BAM	Food	25 g	Contact lab	NA
<i>E. coli</i>	FOEC	BAM	Food	25 g		NA
<i>E. coli</i> O157:H7	FO157	BAM	Food	25 g		NA
Enterotoxin detection, <i>Bacillus cereus</i>	TOXBC	OXOID	Food	25 g		NA
Enterotoxin detection, Shiga-like toxins, PCR	FOPCR	PCR*	Contact lab	Contact lab	Contact lab	NA
Enterotoxin detection, Shiga-like toxins	TOXEC	Meridian	Contact lab	Contact lab	Contact lab	NA
Fecal coliforms, food	FOFC	BAM	Food	25 g		NA
Filth in food or beverages	FOFLT	BAM	Contact lab	Contact lab	Contact lab	NA
Food standard plate count	FOSPC	BAM	Food	25 g		NA
Food Utensil/Surface Counts	FOHPC	BAM	Swab	Trans media		NA
Salmonella/Shigella	FOSAL	BAM	Food	25 g		NA
<i>Staphylococcus aureus</i>	FOSC	BAM	Food	25 g		NA
Total coliforms, food	FOTC	BAM	Food	25 g		NA
Vibrio species in food	FOYM	BAM	Contact lab	Contact lab	Contact lab	NA
Yeast or Mold in food	FOYM	BAM	Food	25 g		NA

Samples associated with an outbreak or complaint are routinely received from health district environmentalists.

1. Sample should be submitted in the original container. If the outbreak involves commercially prepared food also submit an unopened container of the same lot as the food in question.
2. Samples of larger volumes of foods should be collected using aseptic technique. Clean plastic bags may be used in extraordinary circumstances.
3. Samples should be shipped frozen and shipped in such a way they remain so.
4. Fill in the submission form completely, providing information regarding symptoms, onset and duration.

Drinking Water

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total coliform, MMO-MUG	9223B-PA	SM	Water	120 mL		30 hr
<i>E. coli</i> , MUG	9223B-PA	SM	Water	120 mL		30 hr
Total Coliform by Quantitray (Modified MPN)	9223B-QT	SM	Water	120 mL		30 hr
<i>E. coli</i> by Quantitray (Modified MPN)	9223 B-QT	SM	Water	120 mL		30 hr
Total Coliform (Membrane Filter)	9222B	SM	Water	120 mL		30 hr
Total Coliform (10 tube MTF)	9221B-10	SM	Water	120 mL		30 hr
Total Coliform (Presence-Absence Broth)	9221D	SM	Water	120 mL		30 hr
Fecal Coliform (MPN)	9221E	SM	Water	120 mL		30 hr
Giardia and/or Cryptosporidium in drinking water (PWS)	EPA1623		Water	20 L	Contact lab	96 hr
Heterotrophic plate count, drinking water	9215 B	SM	Drinking water	120 mL		8 hr

1. Obtain sample collection bottles and submission forms from the Idaho Bureau of Laboratories
2. Read the directions on the back of the submission form.
3. Call the laboratory if you have any questions.
4. Fill in the gray section of the submission form completely and legibly in ink.
5. Fill in the label on the sample collection bottle using a water proof pen. This maintain the integrity of the sample should the sample and the submission form be separated.
6. Collect the sample following the directions.
7. Return the sample to the Idaho Bureau of Laboratories within 30 hours of the time the sample was collected.

SOURCE WATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Water	120 mL	None	8 hr
Total Coliform (MPN)	9221	SM	Water	120 mL	None	8 hr
Fecal coliform	9221E	SM	Water	120 mL	None	8 hr
Heterotrophic plate count, s	9215 B	SM	Water	120 mL	None	8 hr

1. Follow the directions as listed under drinking water except testing of sample must be done within 8 hours of sample collection.

AMBIENT/RECREATIONAL/ WASTEWATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Recreational & ambient water	200 mL	None	8 hr
<i>E. coli</i> by Quanti-tray (Modified MPN)	9223 B-QT	SM	Recreational & ambient waters	200 mL	None	8 hr
<i>E. Coli</i> O157:H7 isolation	EO157	EPA	Water	200 mL (water)	None	8 hr
<i>Enterococcus</i> by Quanti-tray (Modified MPN)	9230 D	SM	Water	200 mL	None	8 hr
Heterotrophic plate count, environmental	9215 B	SM	Environmental water	120 mL	None	8 hr
Giardia and/or Cryptosporidium	EPA1623		Water	20 L	Contact lab	96 hr
Legionella sp./environmental	9260 J	SM	Contact lab	Contact lab	Contact lab	Contact lab
<i>Listeria monocytogenes</i>	ELIS	BAM	Water	200 mL	Contact lab	8 hr
<i>Pseudomonas aeruginosa</i>	9213	SM	Water	200 mL	None	8 hr
Total Coliform (MPN tube)	9221	SM	Wastewater	200 mL	None	6 hr
Fecal Coliform/ <i>E.coli</i> (MPN)	9221	SM	Wastewater	200	None	6 hr

Yeast or Mold in water	EYM	SM	Contact lab	Contact lab	Contact lab	Contact lab
Identification of Environmental mold	API	6:9610	Contact lab	Contact lab	Contact lab	Contact lab

SLUDGE

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform (MPN)	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Fecal Coliform / <i>E. coli</i>	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Salmonella	9260	SM	Sludge	200 mL	Contact Lab	Contact Lab

1. Obtain sample collection bottles from the Idaho Bureau of Laboratories.
2. Fill in the grey area of the submission form completely and legibly in ink. Include special testing requests, estimated counts, or any circumstances which may effect the level of contamination in the special directions box.
3. See Standard Methods for specific directions.
4. Place samples on ice in such a manner the samples remain cold but not frozen.
5. Samples must reach the laboratory as soon as possible. See above chart.

If you have questions please call the Idaho Bureau of Laboratories, 208-334-2235.

Explanation of References

(1) 40 CFR Part 141. 1989. Safe Drinking Water Act. National Primary Drinking Water Regulations; Total Coliforms (Including Fecal Coliforms and *E. coli*).

(2) 40 CFR Part 141. 1992. Safe Drinking Water Act. National Primary Drinking Water Regulations, Analytical Techniques Coliform Final Rule.

(3) 40 CFR Part 503 Subpart D. 1992. Standards for the use of disposal of sewage sludge rule.

(4) BioMérieux. 1996. Manufacturers Instructions API 20 E System 07564B-09/96. API.

(5) Clesceri, L.S, A.E. Greenberg, and A.E. Eaton, eds. 1998. Standard Methods for the Examination of Water and Wastewater. 20th ed. American Public Health Association. Washington DC.

(6) FDA. 2001. Food and Drug Administration Bacteriological Analytical Manual, 8th ed., Revision A. AOAC International, Gaithersburg, MD.

Sample Preservation and Holding Times

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Bacterial Tests				
Coliform, Fecal and Total	W	P,G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃ ^c	6-24 hours ^d
Fecal Streptococci	W	P,G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃ ^c	6-24 hours ^d
Inorganic Tests				
Acidity	W	P,G	Cool, 4°C	14 days
Alkalinity	W	P,G	Cool, 4°C	14 days
Ammonia	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Biochemical Oxygen Demand (BOD)	W	P,G	Cool, 4°C	48 hours
Bromide	W	P,G	None Required	28 days
Chemical Oxygen Demand (COD)	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Chloride	W	P,G	None Required	28 days
Chlorine, Total Residual	W	P,G	None Required	24 hours
Color	W	P,G	Cool, 4°C	48 hours
Cyanide, Total and Amenable to Chlorination	W	P,G	Cool, 4°C, NaOH to pH>12, Plus 0.6g Ascorbic Acid	14 days
Cyanide, Weak Acid Dissociable	W	P,G	Cool, 4°C, NaOH to pH >12	14 days
Fluoride	W	P,G	None Required	28 days
Hardness	W	P,G	HN0 ₃ to pH<2	6 months
Hydrogen Ion (pH)	W	P,G	None Required	24 hours
Kjeldahl and Organic Nitrogen	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Nitrate	W	P,G	Cool, 4°C	48 hours
Nitrate-Nitrite	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Nitrite	W	P,G	Cool, 4°C	48 hours
Orthophosphate	W	P,G	Filter Immediately, Cool, 4°C	48 hours
Oxygen, Dissolved (Probe)	W	G, Bottle and Top	None Required	Analyze immediately
Oxygen, Dissolved (Winkler)	W	G, Bottle and Top	Fix on Site and Store in Dark	8 hours
Phenolics, Total	W	G Only	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Phosphorus, Elemental	W	G Only	Cool, 4°C	48 hours

Phosphorus, Total	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Residue, Total	W	P,G	Cool, 4°C	7 days
Residue, Filterable (TDS)	W	P,G	Cool, 4°C	7 days
Residue, Nonfilterable (TSS)	W	P,G	Cool, 4°C	7 days
Residue, Settleable	W	P,G	Cool, 4°C	48 hours
Residue, Volatile	W	P,G	Cool, 4°C	7 days
Silica	W	P Only	Cool, 4°C	28 days
Specific Conductance	W	P,G	Cool, 4°C	28 days
Sulfate	W	P,G	Cool, 4°C	28 days
Sulfide	W	P,G	Cool, 4°C, Add Zinc Acetate plus Sodium Hydroxide to pH>9	7 days
Sulfite	W	P,G	None Required	24 hours
Surfactants (MBAS)	W	P,G	Cool, 4°C	48 hours
Tannin and Lignin	W	P,G	Cool, 4°C	28 days
Temperature	W	P,G	None Required	Analyze immediately
Turbidity	W	P,G	Cool, 4°C	48 hours
Metals				
Chromium VI	W	P,G	Cool, 4°C	24 hours
Mercury	W	P,G	HNO ₃ to pH<2	28 days
	S	P,G	Cool, 4°C	28 days
Metals, except Chromium VI and Mercury	W	P,G	HNO ₃ to pH<2	6 months
	S	G, Teflon-Lined Cap	Cool, 4°C	6 months

Chemistry Sample Preservation and Holding Times

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Organic Tests				
Oil and Grease	W	G, Teflon-Lined Cap	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Organic Carbon, Total (TOC)	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Organic Halogens, Total (TOX)	W	G, Teflon-Lined Cap	Cool, 4°C, H ₂ SO ₄ to pH<2 No headspace	28 days
Organic Halogens, Adsorbable (AOX)	W	G, Teflon-Lined Cap	Cool, 4°C, HNO ₃ to pH<2	5 months
Petroleum Hydrocarbons, Total Recoverable	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H ₂ SO ₄ to pH<2	8 days
Petroleum Hydrocarbons, Total	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H ₂ SO ₄ to pH<2	7 days until extraction; 40 days after extraction
	S	G, Teflon-Lined Cap	Cool, 4°C	14 days until extraction; 40 days after extraction
Petroleum Hydrocarbons, Volatile (Gasoline-Range Organics)	W	G, Teflon-Lined Septum Cap	Cool, 4°C, HCl to pH<2 No Headspace	14 days
	S	G, Teflon-Lined Cap	Cool, 4°C Minimize Headspace	14 days

Volatile Organics				
DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Purgeable Halocarbons	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% Na ₂ S ₂ O ₃ , HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined Cap or 5035	Cool, 4°C, Minimize Headspace	14 days
Purgeable Aromatic Hydrocarbons (including BTEX and MTBE)	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% Na ₂ S ₂ O ₃ , HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined CaP or 5035	Cool, 4°C, Minimize Headspace	14 days
Acrolein, Acrylonitrile, Acetonitrile	W	G, Teflon-Lined Septum Cap	Adjust pH to 4-5, Cool, 4°C, No Headspace	14 days

Semivolatile Organics				
DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Petroleum Hydrocarbons, Extractable (Diesel-Range Organics)	W,S	G, Teflon-Lined Cap	Cool, 4°C	7 days until extraction; ^e 40 days after extraction
EDB and DBCP	W,S	G, Teflon-Lined Cap	Cool, 4°C, 3 mg Na ₂ S ₂ O ₃ , No Headspace	14 days
Alcohols and Glycols	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Phenols	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Phthalate Esters	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Nitrosamines	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Organochlorine Pesticides and PCBs	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction

Sample Preservation and Holding Times

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Nitroaromatics and Cyclic Ketones	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Polynuclear Aromatic Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Haloethers	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Organophosphorus Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Nitrogen- and Phosphorus-Containing Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Herbicides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Phenolics	W	G, Teflon-Lined Cap	H ₂ SO ₄ to pH<2, Cool, 4°C ^f	30 days until extraction 30 days after extraction
Resin and Fatty Acids	W	G, Teflon-Lined Cap	NaOH to pH >10, Cool, 4°C ^f	30 days until extraction
				30 days after extraction
Diquat and Paraquat	W	P (250 ml Polypropylene)	Cool, 4°C ^f	7 days until extraction 14 days after extraction
(Safe Drinking Water Act)				30 days after extraction

Toxicity Characteristic Leaching Procedure (TCLP)				
DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO ₃ to pH<2	28 days until extraction 28 days after extraction
Metals, except Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO ₃ to pH<2	180 days until extraction 180 days after extraction
Volatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C Minimize Headspace TCLP extract: Cool, 4°C, HCl to pH<2, No Headspace	14 days until extraction 14 days after extraction
Semivolatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C, Store in Dark ^f TCLP extract: Cool, 4°C, Store in Dark ^f	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Organochlorine Pesticides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Chlorinated Herbicides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction

^a W = Water, S = Soil or Sediment; HW = Hazardous Waste

^b P = Polyethylene (Cubitainer Recommended); G = Glass (one Liter Amber Boston Round Recommended)

^c For chlorinated water samples

^d The recommended maximum holding time is variable, and is dependent upon the geographical proximity of sample source to the laboratory

^e Fourteen days until extraction for soil, sediment, and sludge samples.

^f If the water sample contains residual chlorine, 10% sodium thiosulfate is used to dechlorinate.